

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>ILLINOIS, Northwest</b>				
<b>ROCK ISLAND COUNTY --- 1.2 WNW ROCK IS [41.51, -90.60], 0.4 N SILVIS [41.52, -90.42], 0.5 E SILVIS HGTS [41.50, -90.42], 1.5 SW ROCK IS [41.48, -90.60]</b>				
	07/07/10 13:50 CST	0		Flash Flood (due to Heavy Rain)
	07/07/10 17:00 CST	0		Source: Trained Spotter
Heavy rains resulted in flash flooding of parts of Rock Island County during the afternoon and early evening of July 7. Street flooding was observed near 15th Avenue and 7th Street as well as on Highway 92 at the Silvis-Moline border, where the flood waters were about 1 foot deep. Two trained spotters contributed to this report.				
<b>ROCK ISLAND COUNTY --- 0.1 WSW CORDOVA [41.68, -90.32]</b>				
	07/07/10 14:02 CST	0		Thunderstorm Wind (EG 52 kt)
	07/07/10 14:02 CST	0		Source: Trained Spotter
Wind gusts estimated to be 60 mph were observed in Cordova, IL at 302 pm CDT July 7.				
<b>HANCOCK COUNTY --- BENTLEY [40.35, -91.12], 1.1 E BENTLEY [40.35, -91.10], 0.7 N BENTLY [40.34, -91.10], 0.7 S BENTLEY [40.34, -91.12]</b>				
	07/07/10 19:00 CST	0		Flash Flood (due to Heavy Rain)
	07/07/10 21:00 CST	0		Source: COOP Observer
Heavy rain resulted in flash flooding of the northern part of Bentley, IL during the evening of July 7.				
<b>Showers and thunderstorms produced heavy rains and high winds during the afternoon and evening of July 7. Some flash flooding resulted from the heavy rains.</b>				
<b>HENRY COUNTY --- 0.7 N KEWANEE [41.24, -89.93]</b>				
	07/11/10 16:35 CST	0		Hail (0.75 in)
	07/11/10 16:35 CST	0		Source: Trained Spotter
Non-severe hail up to the size of a penny fell in Kewanee, IL at 535 pm CDT July 11.				
<b>STEPHENSON COUNTY --- 1.7 NNW ROCK GROVE [42.49, -89.52], 1.8 NNW ROCK GROVE [42.49, -89.52]</b>				
	07/12/10 15:03 CST	0		Tornado (EF0, L: 0.07 mi , W: 25 yd)
	07/12/10 15:04 CST	0		Source: Trained Spotter
A trained spotter observed a brief tornado touchdown in the vicinity of Orangeville, IL moving northward toward Juda, WI at 403 pm CDT July 12.				
<b>STEPHENSON COUNTY --- 2.3 NNW ROCK GROVE [42.50, -89.52]</b>				
	07/12/10 15:05 CST	0		Funnel Cloud
	07/12/10 15:05 CST	0		Source: Trained Spotter
A funnel cloud was observed about 2 miles north of Rock Grove, IL at 405 pm CDT July 12.				
<b>STEPHENSON COUNTY --- 5.0 N DAKOTA [42.45, -89.52]</b>				
	07/12/10 15:09 CST	0		Funnel Cloud
	07/12/10 15:09 CST	0		Source: Emergency Manager
A funnel cloud was observed about 5 miles north of Dakota, IL at 409 pm CDT July 12.				
<b>STEPHENSON COUNTY --- 1.0 W LAKE SUMMERSET [42.45, -89.42]</b>				
	07/12/10 15:10 CST	0		Funnel Cloud
	07/12/10 15:10 CST	0		Source: Trained Spotter
A narrow funnel cloud was observed about 2 miles north of Davis, IL at 410 pm CDT July 12. It was slowly moving to the east.				
<b>STEPHENSON COUNTY --- 1.3 NW LAKE SUMMERSET [42.46, -89.42]</b>				
	07/12/10 15:13 CST	0		Funnel Cloud
	07/12/10 15:13 CST	0		Source: Emergency Manager

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A funnel cloud was observed dissipating about 4 miles east of Rock Grove, IL near Rock Grove Road and Davis Road near Lake Summerset at 413 pm CDT July 12. This report was relayed by emergency management.				

**A severe thunderstorm produced a brief tornado in northeast Stephenson County shortly after 4 pm July 12.**

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### HANCOCK COUNTY --- 0.9 SE DALLAS CITY [40.62, -91.16]

07/18/10 05:14 CST	10K	Lightning
07/18/10 05:14 CST	0	Source: Law Enforcement

Lightning damaged a house about 1 mile south of Dallas City, IL at 614 am CDT July 18.

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### HANCOCK COUNTY --- 1.5 NNW HAMILTON [40.42, -91.36]

07/18/10 06:00 CST	0	Thunderstorm Wind (EG 56 kt)
07/18/10 06:00 CST	0	Source: Law Enforcement

Wind gusts estimated to be 65 mph blew a tree down across Highway 96 about 2 miles north of Hamilton, IL around 700 am CDT July 18.

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### HANCOCK COUNTY --- 0.9 S AUGUSTA [40.22, -90.95]

07/18/10 06:15 CST	0	Thunderstorm Wind (EG 56 kt)
07/18/10 06:15 CST	0	Source: Trained Spotter

Wind gusts estimated to be 65 mph blew down some trees near Woodland Cemetery about 1 mile south of Augusta, IL around 715 am CDT July 18.

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### HANCOCK COUNTY --- AUGUSTA [40.23, -90.95]

07/18/10 06:15 CST	0	Thunderstorm Wind (EG 56 kt)
07/18/10 06:15 CST	0	Source: COOP Observer

Wind gusts estimated to be 65 mph blew down several large trees and numerous branches in the vicinity of Augusta, IL around 715 am CDT July 18.

**A severe thunderstorm produced some wind damage across parts of Hancock County during the morning of July 18.**

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### MCDONOUGH COUNTY --- 0.9 NW COLCHESTER [40.44, -90.81], 0.9 SE ARGYLE LAKE SP [40.44, -90.77], 2.1 SE COLCHESTER [40.41, -90.77], 1.3 ESE TENNESSEE [40.41, -90.81]

07/19/10 09:55 CST	0	Flash Flood (due to Heavy Rain)
07/19/10 11:00 CST	0	Source: Trained Spotter

Heavy rains of 1.50 inches in under an hour resulted in flash flooding of some streets in Colchester, IL during the late morning of July 19.

**Heavy rains resulted in flash flooding in Colchester, IL during the late morning of July 19.**

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### HANCOCK COUNTY --- 2.1 NE COLUSA [40.59, -91.14]

07/19/10 18:50 CST	0	Hail (0.88 in)
07/19/10 18:50 CST	0	Source: Trained Spotter

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### HANCOCK COUNTY --- 1.1 E COLUSA [40.57, -91.15]

07/19/10 18:52 CST	0	Hail (1.00 in)
07/19/10 18:52 CST	0	Source: Trained Spotter

Quarter-sized hail fell about 1 mile east of Colusa, IL at 752 pm CDT July 19.

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### HANCOCK COUNTY --- 0.9 NW LA HARPE [40.59, -90.98], 5.3 E LA HARPE [40.59, -90.87], 5.8 ESE LA HARPE [40.55, -90.87], 2.5 SSW LA HARPE [40.55, -90.98]

07/19/10 21:51 CST	0	Flash Flood (due to Heavy Rain)
07/20/10 07:00 CST	0	Source: Amateur Radio

Heavy rains resulted in flash flooding of Route 9 about 3 miles east of La Harpe, IL during the late night of July 19 and morning of July 20. The flood water was about 1 foot deep and several area ditches were overflowing.

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### MCDONOUGH COUNTY --- 6.4 WNW BLANDINSVILLE [40.59, -90.98], 2.8 N BLANDINSVILLE [40.59, -90.87], 0.4 S BLANDINSVILLE [40.55, -90.87], 5.8 W BLANDINSVILLE [40.55, -90.98]

07/19/10 21:51 CST	0	Flash Flood (due to Heavy Rain)
07/20/10 07:00 CST	0	Source: Amateur Radio

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Heavy rains resulted in flash flooding of Route 9 about 3 miles east of La Harpe, IL during the late night of July 19 and morning of July 20. The flood water was about 1 foot deep and several area ditches were overflowing.				
<b>A severe thunderstorm produced large hail in Hancock County just before 8 pm CDT July 19. Heavy rains lead to some flash flooding in Hancock and McDonough Counties later that night and during the morning of July 20.</b>				
<b>HANCOCK COUNTY --- 2.8 S BURNSIDE [40.46, -91.11], 11.7 E FOUNTAIN GREEN [40.46, -90.75], 6.8 E PLYMOUTH [40.28, -90.79], 0.5 E PLYMOUTH [40.28, -90.91]</b>				
	07/20/10 05:30 CST		0.15M	Flood (due to Heavy Rain)
	07/23/10 08:00 CST		0	Source: River/Stream Gage
<b>MCDONOUGH COUNTY --- 13.4 NW COLMAR [40.46, -91.11], 1.7 ENE ARGYLE LAKE SP [40.46, -90.75], 6.3 S FANDON [40.28, -90.79], 4.9 S COLMAR [40.28, -90.91]</b>				
	07/20/10 05:30 CST		0.10M	Flood (due to Heavy Rain)
	07/23/10 08:00 CST		0	Source: River/Stream Gage
Heavy rains during the third week of July resulted in the La Moine River at Colmar going above the moderate flood stage level of 22 feet around 630 am CDT July 20. It crested around 23.8 feet around 1 am CDT July 22. It fell below the moderate flood stage level around 9 am July 23.				
<b>STEPHENSON COUNTY --- 2.0 E AFOLKEY [42.47, -89.54]</b>				
	07/22/10 20:28 CST		0	Thunderstorm Wind (EG 52 kt)
	07/22/10 20:28 CST		0	Source: Emergency Manager
Wind gusts estimated to be 60 mph blew down several 6 to 8 inch diameter trees near Rock Grove, IL at 928 pm CDT July 22.				
<b>STEPHENSON COUNTY --- 0.7 S ROCK CITY [42.41, -89.47]</b>				
	07/22/10 20:33 CST		0	Thunderstorm Wind (EG 56 kt)
	07/22/10 20:33 CST		0	Source: Emergency Manager
Wind gusts estimated to be 65 mph blew down a 20 inch diameter tree onto Dakota Road in Rock City, IL around 933 pm CDT July 22.				
<b>A severe thunderstorm downed trees in northeast Stephenson County during the evening of July 22nd.</b>				
<b>STEPHENSON COUNTY --- 6.4 NNW WADDAMS GROVE [42.51, -89.93], 3.5 N LAKE SUMMERSET [42.50, -89.40], 4.0 ESE GERMAN VLY [42.20, -89.40], 3.6 ESE LORAN [42.20, -89.86], 3.8 SE LORAN [42.20, -89.86], 2.3 S LORAN [42.20, -89.92]</b>				
	07/22/10 23:48 CST		1M	Flash Flood (due to Heavy Rain)
	07/23/10 17:00 CST		0	Source: Emergency Manager
Heavy rains of 2.5 to 6 inches fell across Stephenson County the evening hours of July 22 and through the morning of July 23 resulting in flash flooding of much of the county. At 1248 am CDT, Freeport was flooded with about 10 inches of water in the streets. Several roads were completely covered with water, especially in the vicinity of the Taylor Park District and near Route 75. The flood waters came up to the middle of car tires. Just before 130 am CDT, WREX TV relayed a report from a Freeport viewer that there was "standing water everywhere". At 405 am CDT, several homes in Pearl City were flooded. Some of the residences on the north side of town had flood waters up to the first floor level. In addition, the city's sewer system was overwhelmed with the flood waters blowing some manhole covers off. Route 73 near Pearl City was closed due to 8 inches of water flowing across the road, and Yellow Creek began flooding some nearby homes. Highway 26 just south of Freeport was also closed due to flooding. Trained spotters, CO-OP observers, the general public, WREX TV, and emergency management all contributed to this report.				
<b>JO DAVIESS COUNTY --- 3.4 NW EAST DUBUQUE [42.51, -90.69], 2.8 E WARREN [42.51, -89.93], 6.0 SSE WILLOW [42.20, -89.92], 2.4 SW WHITTON [42.19, -90.36]</b>				
	07/23/10 02:15 CST		1M	Flash Flood (due to Heavy Rain)
	07/23/10 17:00 CST		0	Source: Law Enforcement
Heavy rains of 3 to 9 inches fell across Jo Daviess County during the late evening of July 22 and through the morning of July 23 resulting in flash flooding of much of the county. At 315 am CDT, water was over Highway 20 near Galena and Highway 35 near East Dubuque. Apple River overflowed its banks due to the flash flooding. In Elizabeth, water was flowing out of manhole covers. In addition, Lone Street and Apple River Road were closed due to the flood waters. At 940 am CDT, water rescues were in progress in Elizabeth. Several roads were closed due to flooding.				
<b>CARROLL COUNTY --- 8.3 WNW MARCUS [42.20, -90.32], 6.9 NNW LANARK [42.20, -89.86], 7.0 NNW LANARK [42.20, -89.86], 4.3 NE SHANNON [42.20, -89.68], 2.8 S HAZELHURST [41.93, -89.69], 4.1 SW THOMSON [41.93, -90.16]</b>				
	07/23/10 03:00 CST		1M	Flash Flood (due to Heavy Rain)
	07/23/10 17:00 CST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Heavy rains of 3 to 9 inches fell across Carroll County during the late evening hours of July 22 and through the morning hours of July 23 resulting in flash flooding of much of the county. Several roads across the county, especially the northern half, were closed due to the flash flooding. The Shannon area received over 8 inches of rain during the night and was in need of sludge pumps to assist with the flooding issues in the area. Areas that had never flooded before were flooded.				

**Thunderstorms with extremely heavy rain developed along a stationary front and moved from northeast Iowa into northwest Illinois. Some locations measured 5 to 7 inches of rainfall, causing localized flash flooding and pushing numerous creeks out of their banks. Yellow Creek in Stephenson County was particularly hard-hit.**

**Pushing numerous rivers and creeks to bankfull or even out of their banks, this round of rainfall further set the stage for the extreme flooding that developed with the next round of storms later that night.**

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### ROCK ISLAND COUNTY --- 6.6 WSW ILLINOIS CITY [41.37, -91.02]

07/23/10 14:35 CST	0	Thunderstorm Wind (EG 52 kt)
07/23/10 14:35 CST	0	Source: Trained Spotter

Wind gusts estimated to be 50 to 60 mph were observed about 4 miles southeast of Muscatine, IA or about 6.5 miles west southwest of Illinois City, IL at 335 pm CDT July 23.

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### ROCK ISLAND COUNTY --- 0.7 E (MLI) QUAD CITY ARPT [41.45, -90.51]

07/23/10 14:57 CST	0	Thunderstorm Wind (MG 51 kt)
07/23/10 14:57 CST	0	Source: ASOS

A wind gust measured to be 59 mph was observed by the ASOS at the Quad City Airport in Moline, IL at 357 pm CDT July 23.

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### HENRY COUNTY --- 1.7 SW ORION [41.33, -90.40]

07/23/10 15:05 CST	1K	Thunderstorm Wind (EG 52 kt)
07/23/10 15:05 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph ripped some shingles off of a residence about 2 miles southwest of Orion, IL around 405 pm CDT July 23.

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### HENRY COUNTY --- 0.5 E CAMBRIDGE [41.30, -90.19]

07/23/10 15:15 CST	0	Thunderstorm Wind (EG 52 kt)
07/23/10 15:15 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph blew down some large tree limbs in Cambridge, IL around 415 pm CDT July 23.

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### HENRY COUNTY --- 0.7 N COLONA [41.49, -90.35]

07/23/10 15:16 CST	0	Thunderstorm Wind (EG 56 kt)
07/23/10 15:16 CST	0	Source: Trained Spotter

Wind gusts estimated to be 65 mph were observed in Colona, IL at 416 pm CDT July 23.

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### HENRY COUNTY --- GENESEO [41.45, -90.15]

07/23/10 15:18 CST	10K	Thunderstorm Wind (EG 61 kt)
07/23/10 15:18 CST	0	Source: Newspaper

Wind gusts estimated to be 65 to 70 mph blew down numerous large trees and branches in Geneseo, IL around 418 pm CDT July 23.

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### HENRY COUNTY --- 3.3 SE ANNAWAN [41.37, -89.87]

07/23/10 15:25 CST	0	Thunderstorm Wind (EG 52 kt)
07/23/10 15:25 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph were observed about 3 miles southeast of Annawan, IL around 425 pm CDT July 23.

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### BUREAU COUNTY --- TISKILWA [41.30, -89.52]

07/23/10 15:42 CST	0	Thunderstorm Wind (EG 52 kt)
07/23/10 15:42 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph were observed just west of Tiskilwa, IL at 442 pm CDT July 23.

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### BUREAU COUNTY --- 1.4 S WYANET [41.35, -89.58]

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/23/10 15:45 CST		0	Thunderstorm Wind (EG 56 kt)
	07/23/10 15:45 CST		0	Source: Trained Spotter

Wind gusts estimated to be 60 to 65 mph were observed about 1 mile south of Wyanet, IL at 445 pm CDT July 23.

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### BUREAU COUNTY --- PRINCETON [41.37, -89.47]

07/23/10 15:50 CST	50K	Thunderstorm Wind (EG 61 kt)
07/23/10 15:55 CST	0	Source: Emergency Manager

Wind gusts estimated to be 65 to 70 mph downed power lines, uprooted trees, and destroying fences. East Thompson Street and Euclid Avenue were particularly hard-hit with numerous trees, branches, and power lines down. A riding lawn mower was overturned, and the local newspaper reported that a boat was lodged in a tree.

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### BUREAU COUNTY --- 0.7 S LA MOILLE [41.52, -89.28]

07/23/10 16:01 CST	0	Thunderstorm Wind (EG 61 kt)
07/23/10 16:01 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 to 70 mph were observed about 1 mile south of La Moille, IL at 501 pm CDT July 23.

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### HENRY COUNTY --- 2.8 N ANNAWAN [41.44, -89.93]

07/23/10 16:14 CST	5K	Thunderstorm Wind (EG 56 kt)
07/23/10 16:14 CST	0	Source: Trained Spotter

Wind gusts estimated to be 65 mph blew down some power lines in Annawan, IL at 514 pm CDT July 23. A power outage was observed throughout the town.

In association with a stationary front, a large complex of thunderstorms travelled generally along and south of the Interstate 80 corridor during the afternoon and early evening of the 23rd. The storms moved across eastern Iowa and into northwest Illinois during the afternoon, intensifying as they moved east and became more organized. By the time the thunderstorm complex crossed the Mississippi River, wind gusts approached 70 mph. Extensive damage was reported across portions of Henry, Bureau, and Putnam Counties in Illinois from these storms.

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### STEPHENSON COUNTY --- 2.6 W WINSLOW [42.51, -89.85], 3.1 NW ONECO [42.51, -89.70], 1.8 SE CEDARVILLE [42.35, -89.61], 4.9 SSE DAVIS [42.35, -89.40], 4.1 ENE GERMAN VLY [42.25, -89.40], 2.1 NE BOLTON [42.25, -89.70]

07/24/10 02:00 CST	0.50M	Flood (due to Heavy Rain)
07/28/10 21:00 CST	0	Source: River/Stream Gage

Heavy rains during the fourth week of July resulted in the Pecatonica River at Freeport going above the moderate flood stage level of 14 feet around 3 am CDT July 24. It crested around 16.2 feet around 1 am CDT July 25. It fell below the moderate flood stage level around 10 pm CDT July 28.

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### STEPHENSON COUNTY --- 1.7 ENE WINNESHIEK [42.34, -89.52], 2.6 WNW GERMAN VLY [42.23, -89.52], 2.4 SSW PEARL CITY [42.24, -89.85], 3.0 S LENA [42.34, -89.83]

07/24/10 03:00 CST	0.50M	Flash Flood (due to Heavy Rain)
07/24/10 07:00 CST	0	Source: Newspaper

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Heavy rains of about 3 inches in under 3 hours (for a total of about 11 inches in less than 32 hours) resulted in extensive flash flooding during the morning of July 24. The greatest impact was flash flooding of Yellow Creek from Pearl City to Freeport, with additional impacts from flash flooding of the Pecatonica River in and near Freeport.				

Local emergency management officials described the flood damage as "the worst damage I've seen in 19 years", and many lifelong residents affected by Yellow Creek described it as worse than anything they had ever experienced in their lifetimes.

Forty-three roads in Stephenson County were under water and closed to traffic, including Business Highway 20, Highway 20, and Route 75. Streets in downtown Freeport had as much as 5 to 6 feet of water. Some people who were trapped in flooded vehicles were rescued by boat. In the weeks following the flash flood, more than 20 sink holes developed in Freeport roads. The Stephenson County engineer documented about \$1 million in damage to county and township roads.

In Pearl City, about 80 homes were damaged in the flooding of Yellow Creek, and an additional 60 homes in unincorporated portions of the county we also damaged. One Pearl City resident awoke around 3 am CDT to the sound of trickling water to discover his possessions floating in 3 feet of water.

More than 700 homes and countless businesses in Freeport were damaged. Numerous stores in the Southgate Market area were flooded and remained closed for at least 2 weeks, some for as long as 6 weeks. Also affected was the Winneshiek Playhouse, the oldest amateur theater in the United States, which suffered 3 feet of water in its basement. Freeport Fire Station 3 was nearly completely under water and was evacuated due to the flooding. Due to repeated rounds of heavy rain (with nearly a foot of rain measured in less than 48 hours), the Freeport wastewater treatment plant sustained about \$1.4 million in damages.

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**JO DAVIESS COUNTY --- 3.2 WNW EAST DUBUQUE [42.51, -90.68], 2.8 E WARREN [42.51, -89.93], 2.4 SSE WILLOW [42.25, -89.93], 2.1 SW BLANDING [42.25, -90.41], 1.0 W AIKEN [42.35, -90.44]**

07/24/10 03:15 CST	0.50M	Flash Flood (due to Heavy Rain)
07/24/10 07:00 CST	0	Source: Trained Spotter

Heavy rains during the late night of July 23 and early morning of July 24 resulted in flash flooding of much of Jo Daviess County during the morning of July 24. Major flooding was observed along the Apple River near Elizabeth, where the river level was just below the bridge deck of Highway 20. Water rescues of stranded motorists were performed near Galena, Stockton, and Scales Mound between 4 am CDT and 630 am CDT. A bridge was washed out near Little Rush Creek and Bethel Road about 3 miles east southeast of Elizabeth, IL. A grocery store in Stockton was flooded with 3 inches of water.

Galena closed their flood gates around 5 am CDT on Saturday the 24th, and the Galena River crested about 3 feet high in front of the gates.

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**CARROLL COUNTY --- 7.2 NNW LANARK [42.19, -89.89], 3.4 N CHADWICK [42.07, -89.88], 0.2 NE SAVANNA STRANSKY ARP [42.05, -90.12], 0.8 NW SAVANNA [42.09, -90.16], 1.3 SE MS PALLISADES SP [42.12, -90.16], 4.1 NE MARCUS [42.19, -90.11]**

07/24/10 05:00 CST	10M	Flash Flood (due to Heavy Rain)
07/25/10 07:00 CST	0	Source: Newspaper

After about a foot of rain in 2 days, creek and small river basins rose rapidly Saturday morning. Numerous rural roads throughout the county suffered from washouts and excessive erosion. Near Argo Fay, Johnson Creek overflowed its banks and closed Big Cut Road.

In Mount Carroll, flooding of the Waukarusa River forced evacuations of about 80 homes, mainly on or near Mill Street. The local fire chief estimated that 80% of Mount Carroll residences had water in their basements.

The Plum River overflowed its banks between Lake Carroll and Savanna, causing extensive and severe damage. Just west of Lake Carroll, a farm house on Polsgrove Road flooded. The resident of the home described the event, saying that around 5 am there was no sign of flooding nearby, and by 7 am water was in the house.

As the flood waters approached Savanna, the Plum River either overflowed or breached (it is unclear which) a high bank along Scenic Bluff Road, flowing then through the railroad yard to the Mississippi River. Local residents describe water rising about 4 feet in literally a few minutes. In Savanna, an estimated 625 people were evacuated, mainly from the eastern and southern portions of town. Due to the rapidly rising water, first responders in Savanna rescued more than 60 people from their homes. At least 12 homes suffered water up to the first floor and a Swiss Colony factory had several feet of water throughout its facility. Emergency management estimated 10 homes completely destroyed and 75 seriously damaged in Savanna alone. The raging flood waters washed away more than 30 yards of embankment supporting an overpass on the Highway 84 viaduct, washing away two rows of pylons that were supporting the bridge and closing the primary access route south of Savanna indefinitely. Numerous rail cars in the train yard were overturned, some of them washed up against bridges. Both DM&E and Burlington Northern suffered damage to their rail lines.

**Still supported by a nearby stationary front, a second round of thunderstorms dropped another 3-5 inches of rain across northwest Illinois during the overnight hours of July 23rd into the early morning of July 24th. This additional heavy rain exacerbated the ongoing flooding from the night before and caused even more extensive and severe damage. Yellow Creek and the Pecatonica River (Stephenson County), the Apple and Galena Rivers (Jo Daviess County), and the Plum River were most notably affected.**

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**CARROLL COUNTY --- 2.1 S CHADWICK [41.99, -89.88], 1.4 N MILLEDGEVILLE [41.99, -89.78], 2.8 S MILLEDGEVILLE [41.93, -89.78], 3.1 ESE FAIRHAVEN [41.93, -89.88]**

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	07/24/10 11:00 CST		0	Flood (due to Heavy Rain)
	07/24/10 13:00 CST		0	Source: Trained Spotter

Heavy rains resulted in Rock Creek about 2 miles west of Milledgeville, IL to flow over the road during the afternoon of July 24.

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### HANCOCK COUNTY --- 0.9 SW HAMILTON [40.39, -91.36]

07/24/10 12:34 CST	0	Thunderstorm Wind (EG 56 kt)
07/24/10 12:34 CST	0	Source: Law Enforcement

Wind gusts estimated to be 65 mph blew down a couple of trees in Hamilton, IL at 134 pm CDT July 24.

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### HANCOCK COUNTY --- 0.9 SW CARTHAGE [40.41, -91.14]

07/24/10 12:40 CST	0	Thunderstorm Wind (EG 56 kt)
07/24/10 12:40 CST	0	Source: Law Enforcement

Wind gusts estimated to be 65 mph blew down a couple of trees in Carthage, IL at 140 pm CDT July 24.

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### MCDONOUGH COUNTY --- 4.9 S MACOMB [40.40, -90.68]

07/24/10 13:22 CST	0	Thunderstorm Wind (EG 52 kt)
07/24/10 13:22 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph were observed about 5 miles south of Macomb, IL at 222 pm CDT July 24.

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### MCDONOUGH COUNTY --- 2.8 S MACOMB [40.43, -90.68]

07/24/10 13:25 CST	0	Thunderstorm Wind (EG 56 kt)
07/24/10 13:25 CST	0	Source: Trained Spotter

Wind gusts estimated to be 65 mph snapped off some 14 to 16 inch diameter trees about 3 miles south of Macomb, IL around 225 pm CDT July 24.

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### HANCOCK COUNTY --- AUGUSTA [40.23, -90.95]

07/24/10 13:28 CST	0	Thunderstorm Wind (EG 52 kt)
07/24/10 13:28 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph were observed in Augusta, IL at 228 pm CDT July 24.

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### MCDONOUGH COUNTY --- 0.5 W INDUSTRY [40.33, -90.61]

07/24/10 13:30 CST	0	Thunderstorm Wind (EG 56 kt)
07/24/10 13:30 CST	0	Source: Trained Spotter

Wind gusts estimated to be 65 mph blew down a couple of trees in Industry, IL around 230 pm CDT July 24.

**A thunderstorm complex intensified as it approached the Mississippi River, producing damaging wind gusts that blew down trees in west-central Illinois during the afternoon of July 24th.**

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### WHITESIDE COUNTY --- 2.1 NNW ERIE [41.68, -90.09], 2.9 SE PENROSE [41.85, -89.63], 2.0 E YEOWARD ADDITION [41.75, -89.63], 3.5 SW SPRING HILL [41.58, -90.09]

07/24/10 23:30 CST	0.50M	Flood (due to Heavy Rain)
07/27/10 08:30 CST	0	Source: River/Stream Gage

Heavy rains during the fourth week of July resulted in the Rock River at Como going above the moderate flood stage level of 11 feet around 1230 am CDT July 25. It crested around 12.9 feet around 1 am CDT July 26. It fell below the moderate flood stage level around 930 am CDT July 27.

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### HENRY COUNTY --- 3.7 WNW GREEN ROCK [41.50, -90.43], 11.2 NW HOOPPOLE [41.67, -90.09], 7.4 NNW HOOPPOLE [41.67, -89.97], 2.3 SSW SHADY BEACH [41.50, -90.22]

07/25/10 19:00 CST	0.13M	Flood (due to Heavy Rain)
07/31/10 23:59 CST	0	Source: River/Stream Gage

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### ROCK ISLAND COUNTY --- SILVIS HGTS [41.50, -90.43], 5.4 NE HILLSDALE [41.67, -90.09], 10.9 ENE HILLSDALE [41.67, -89.97], 2.9 ESE OSBORN [41.50, -90.22]

07/25/10 19:00 CST	0.13M	Flood (due to Heavy Rain)
07/31/10 23:59 CST	0	Source: River/Stream Gage

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WHITESIDE COUNTY --- 20.9 WSW ERIE [41.50, -90.43], 1.5 NNW ERIE [41.67, -90.09], 0.5 E PORTLAND CORNERS [41.67, -89.97], 12.1 SW SPRING HILL [41.50, -90.22]</b>				
	07/25/10 19:00 CST		0.25M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in the Rock River at Joslin going above the moderate flood stage level of 14 feet around 8 pm CDT July 25. It crested around 17.4 feet around 7 pm CDT July 27. It remained above the moderate flood stage level through the end of the month.				
<b>HANCOCK COUNTY --- 63.0 N DALLAS CITY [41.54, -91.10], 71.3 NNE DISCO [41.54, -90.40], 3.0 WSW TIOGA [40.20, -91.40], 13.3 W TIOGA [40.20, -91.60]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>HENDERSON COUNTY --- 36.5 NNW BIG RIVER ST FOREST [41.54, -91.10], 42.9 NNE BALD BLUFF [41.54, -90.40], 37.4 SSW LOMAX [40.20, -91.40], 43.3 SW LOMAX [40.20, -91.60]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>MERCER COUNTY --- 17.9 NNW ELIZA [41.54, -91.10], 16.1 NNE SHERRARD [41.54, -90.40], 66.9 SSW KEITHSBURG [40.20, -91.40], 71.4 SSW KEITHSBURG [40.20, -91.60]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>ROCK ISLAND COUNTY --- 14.2 NW ILLINOIS CITY [41.54, -91.10], 0.7 N BABCOCK ADDITION [41.54, -90.40], 83.2 SSW BUFFALO PRAIRIE [40.20, -91.40], 87.4 SSW BUFFALO PRAIRIE [40.20, -91.60]</b>				
	07/25/10 21:30 CST		0.25M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in moderate flooding on the Mississippi River from Rock Island to Gregory Landing.				
At Rock Island, it crested around 17.2 feet around 1 pm July 27.				
At Illinois City, it crested around 17.0 feet around 7 am July 28.				
At Muscatine, it crested around 18.5 feet around 1 pm July 28.				
At New Boston, it crested around 18.3 feet around 1 pm July 28.				
At Keithsburg, it crested around 16.9 feet around 1 am July 29.				
At Gladstone, it crested around 13.6 feet around 7 am July 29.				
At Burlington, it crested around 17.74 feet around 7 pm July 29.				
At Keokuk, it crested around 18.2 feet around 7 pm July 29.				
At Gregory Landing, it crested around 19.36 feet around 1 pm July 30.				
<b>HENRY COUNTY --- 12.4 WNW SUNNY HILL [41.50, -90.63], 1.0 E CLEVELAND [41.50, -90.30], 0.7 N WARNER [41.43, -90.38], 10.6 WNW SUNNY HILL [41.43, -90.63]</b>				
	07/27/10 02:00 CST		0.10M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>ROCK ISLAND COUNTY --- 2.6 W ROCK IS [41.50, -90.63], 2.1 SW OSBORN [41.50, -90.30], 4.7 E COAL VLY [41.43, -90.38], 3.2 WNW OAK GROVE [41.43, -90.63]</b>				
	07/27/10 02:00 CST		0.40M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in the Rock River at Moline going above the moderate flood stage level of 13 feet around 3 am CDT July 27. It crested around 14.2 feet around 1 pm CDT July 28. It remained above the moderate flood stage level through the end of the month.				

### IOWA, East Central and Southeast

**IOWA COUNTY --- 5.9 WNW KOSZTA [41.86, -92.30], 3.5 NE EAST AMANA [41.86, -91.83], 2.4 SE HOMESTEAD [41.75, -91.83], 1.4 N VICTOR [41.75, -92.30]**



## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/01/10 00:00 CST		0.25M	Flood (due to Heavy Rain)
	07/15/10 12:00 CST		0	Source: River/Stream Gage

Heavy rains during the last two weeks of June resulted in the Iowa River at Marengo remaining above the moderate flood stage level of 15.5 feet into July. It crested around 17.8 feet around 1 pm CDT July 6. It had a secondary crest of 17.7 feet around 7 am July 8. It finally fell below the moderate flood stage level around 1 pm CDT July 15.

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<b>LEE COUNTY --- 7.1 WNW CROTON [40.61, -91.81], 2.6 NE CROTON [40.61, -91.65], 0.9 SW KEOKUK [40.39, -91.39], 7.8 SW KEOKUK [40.31, -91.47]</b>				
	07/05/10 15:00 CST		0.13M	Flood (due to Heavy Rain)
	07/10/10 21:00 CST		0	Source: River/Stream Gage

Heavy rains during the first week of July resulted in the Des Moines River at St. Francisville going above the moderate flood stage level of 22 feet around 4 pm CDT July 5. It crested around 24.6 feet around 7 pm CDT July 6. It fell below the moderate flood stage level around 10 pm CDT July 10.

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<b>VAN BUREN COUNTY --- 6.1 NNW SELMA [40.95, -92.20], 3.6 NNE FARMINGTON [40.70, -91.71], 5.9 SSE INDIAN LAKE PARK [40.55, -91.71], 5.5 SSW SELMA [40.80, -92.20]</b>				
	07/05/10 19:00 CST		0.25M	Flood (due to Heavy Rain)
	07/07/10 00:00 CST		0	Source: River/Stream Gage

Heavy rains during the first week of July resulted in the Des Moines River at Keosauqua going above the moderate flood stage level of 25 feet around 8 pm July 5. It crested around 25.8 feet around 7 am CDT July 6. It fell below the moderate flood stage level around 1 am CDT July 7.

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<b>KEOKUK COUNTY --- 1.7 SSW COAL CREEK [41.41, -92.41], 2.9 NNE KEOTA [41.41, -91.95], 3.1 ENE RICHLAND [41.20, -91.95], 5.2 WNW HEDRICK [41.20, -92.41]</b>				
	07/05/10 21:00 CST		0.25M	Flood (due to Heavy Rain)
	07/06/10 04:00 CST		0	Source: River/Stream Gage

Heavy rains during the first week of July resulted in the Skunk River at Sigourney going above the moderate flood stage level of 18 feet around 10 pm July 5. It crested around 18.2 feet around 1 am CDT July 6. It fell below the moderate flood stage level around 5 am CDT July 6.

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<b>LEE COUNTY --- 3.6 NNE VIELE [40.67, -91.40], 3.6 SSW WEVER [40.67, -91.25], 3.7 E FT MADISON [40.64, -91.25], 2.3 SSE VIELE [40.59, -91.40]</b>				
	07/05/10 22:43 CST		0.10M	Flash Flood (due to Heavy Rain)
	07/06/10 04:00 CST		0	Source: Law Enforcement

Heavy rains resulted in flash flooding of several streets in Fort Madison, IA during the late night of July 5 and early morning of July 6. Several streets had to be closed due to the high water.

Heavy rains resulted in flash flooding of several streets in Fort Madison, IA during the late night of July 5 and early morning of July 6.

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<b>BUCHANAN COUNTY --- 1.8 WNW FAIRBANK [42.64, -92.08], 2.1 WSW STANLEY [42.64, -91.86], 3.7 SE FONTANA COUNTY PARK [42.57, -91.86], 3.8 NW LITTLETON [42.57, -92.08]</b>				
	07/07/10 07:30 CST		50K	Flash Flood (due to Heavy Rain)
	07/07/10 12:00 CST		0	Source: Trained Spotter

Heavy rains resulted in flash flooding over parts of northern Buchanan County during the morning and early afternoon hours of July 7. Water was over a road about 1 mile south of Hazleton, IA. Highway 150 was closed due to the flood waters near 110th Street near the Buchanan-Fayette county line. In addition, the Little Wapsipinicon River was out of its banks and flooding Siggelkov Park in Fairbank, IA.

Heavy rains resulted in flash flooding over parts of northern Buchanan County during the morning and early afternoon hours of July 7.

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<b>SCOTT COUNTY --- 3.8 NE PLEASANT VLY [41.61, -90.38], 1.2 NW LE CLAIRE [41.61, -90.30], 0.9 SE RIVERDALE [41.52, -90.46], 1.7 WSW BETTENDORF [41.52, -90.55]</b>				
	07/07/10 14:02 CST		0	Flash Flood (due to Heavy Rain)
	07/07/10 16:00 CST		0	Source: Trained Spotter

Heavy rains resulted in flash flooding of roads near Route 67 and Grant Street during the afternoon of July 7. Reported by spotter from the Le Claire, IA area.

Heavy rains resulted in flash flooding of roads near Route 67 and Grant Street in Scott County during the afternoon of July 7.

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>BUCHANAN COUNTY --- 2.0 WNW FAIRBANK [42.64, -92.08], 1.0 NNE FAIRBANK [42.64, -92.04], 6.4 ESE TROY MILLS CARSON AR [42.30, -91.60], 4.4 WSW TROY MILLS CARSON AR [42.30, -91.80], 2.9 WSW LITTLETON [42.52, -92.08]</b>				
	07/07/10 19:40 CST		0.50M	Flood (due to Heavy Rain)
	07/08/10 23:30 CST		0	Source: River/Stream Gage
Due to intense mitigation efforts over the last decade, the impact of flooding along the Wapsipinicon River was minimal, limited primarily to parks in Independence.				
Heavy rains during the first week of July resulted in the Wapsipinicon River at Independence going above the moderate flood stage level of 13 feet on July 7 around 840 pm CDT. It crested around 15.6 feet around 7 am CDT July 8. It fell below the moderate flood stage level around 1230 am CDT July 9.				
<b>CLINTON COUNTY --- 3.6 NNW TORONTO [41.95, -90.90], 4.1 E FOLLETTES [41.75, -90.30], 0.5 E CAMANCHE [41.67, -90.34], 4.5 SW BIG ROCK [41.73, -90.90]</b>				
	07/08/10 06:00 CST		0.15M	Flood (due to Heavy Rain)
	07/09/10 12:00 CST		0	Source: River/Stream Gage
<b>SCOTT COUNTY --- 15.1 NNW DIXON [41.95, -90.90], 5.3 ESE MC CAUSLAND [41.75, -90.30], 0.5 E PRINCETON [41.67, -90.34], 1.2 NW NEW LIBERTY [41.73, -90.90]</b>				
	07/08/10 06:00 CST		0.15M	Flood (due to Heavy Rain)
	07/09/10 12:00 CST		0	Source: River/Stream Gage
Heavy rains during the first week of July resulted in the Wapsipinicon River at De Witt going up to the moderate flood stage level of 11.5 feet on July 8 around 7 am CDT. It remained at 11.5 feet until around 1 pm CDT July 9.				
<b>LOUISA COUNTY --- 0.9 SE COLUMBUS CITY [41.26, -91.37], 4.9 ESE GRANDVIEW [41.26, -91.11], 5.6 ESE OAKVILLE [41.07, -90.95], 0.7 S NEWPORT [41.07, -91.18]</b>				
	07/08/10 12:00 CST		0.25M	Flood (due to Heavy Rain)
	07/08/10 12:00 CST		0	Source: River/Stream Gage
Heavy rains during the first week of July resulted in the Iowa River at Wapello cresting at the moderate flood stage level of 22.0 feet around 1 pm July 8.				
<b>JONES COUNTY --- 4.2 N STONE CITY [42.18, -91.36], 2.6 NE OXFORD MILLS [42.00, -90.90], 2.3 SE OXFORD MILLS [41.95, -90.90], 4.2 SSE OLIN [41.95, -91.09], 0.3 E MARTELLE [42.02, -91.36]</b>				
	07/09/10 18:20 CST		0.25M	Flood (due to Heavy Rain)
	07/12/10 02:30 CST		0	Source: River/Stream Gage
Heavy rains during the first week of July resulted in the Wapsipinicon River at Anamosa going above the moderate flood stage level of 15.5 feet on July 9 around 720 pm CDT. It crested around 18.8 feet around 7 pm CDT July 10. It fell below the moderate flood stage level around 330 am CDT July 12.				
<b>CLINTON COUNTY --- 3.6 NNW TORONTO [41.95, -90.90], 4.1 E FOLLETTES [41.75, -90.30], 0.5 E CAMANCHE [41.67, -90.34], 4.5 SW BIG ROCK [41.73, -90.90]</b>				
	07/12/10 12:00 CST		0.25M	Flood (due to Heavy Rain)
	07/17/10 18:00 CST		0	Source: River/Stream Gage
<b>SCOTT COUNTY --- 15.1 NNW DIXON [41.95, -90.90], 5.3 ESE MC CAUSLAND [41.75, -90.30], 0.5 E PRINCETON [41.67, -90.34], 1.2 NW NEW LIBERTY [41.73, -90.90]</b>				
	07/12/10 12:00 CST		0.25M	Flood (due to Heavy Rain)
	07/17/10 18:00 CST		0	Source: River/Stream Gage
Heavy rains during the second week of July resulted in the Wapsipinicon River near De Witt rising above the moderate flood stage level of 11.5 feet on July 12 around 1 pm CDT. It crested around 12.9 feet around 7 pm CDT July 14. It fell below the moderate flood stage level around 7 pm CDT July 17.				
<b>BENTON COUNTY --- 2.2 WSW VINTON [42.16, -92.07], 2.2 ESE VINTON [42.16, -91.99], 1.5 SSW NEWHALL [41.96, -91.99], 4.2 S VAN HORNE [41.96, -92.07]</b>				
	07/12/10 14:13 CST		0	Flash Flood (due to Heavy Rain)
	07/12/10 19:00 CST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Heavy rains resulted in flash flooding of Highway 218 in several locations from Vinton, IA southward to Highway 30 during the afternoon and evening of July 12.				

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**LINN COUNTY --- 0.9 SW MARION MC BRIDE ARPT [42.06, -91.64], 2.9 SSE VIOLA [42.06, -91.36], 1.0 SW LISBON MOHN ARPT [41.96, -91.36], 0.9 NE CEDAR RAPIDS [42.01, -91.64]**

07/12/10 14:18 CST	0	Flash Flood (due to Heavy Rain)
07/12/10 19:00 CST	0	Source: Broadcast Media

Heavy rains resulted in flash flooding of parts of Marion, IA and areas eastward to the Linn-Jones County line during the afternoon and evening of July 12. The flood waters were waist deep in Marion. Linn Grove Road just west of Martelle, IA was covered with flood waters up to 2 feet deep. This report was relayed by KGAN TV. Jones County emergency management also contributed to this report.

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**JONES COUNTY --- 1.4 S LERCHS ARPT [42.05, -91.36], 2.1 SSE FAIRVIEW [42.05, -91.31], 3.2 WSW MORLEY [41.99, -91.31], 2.1 S MARTELLE [41.99, -91.36]**

07/12/10 14:31 CST	0	Flash Flood (due to Heavy Rain)
07/12/10 19:00 CST	0	Source: Emergency Manager

Heavy rains resulted in flash flooding of some area roads in the vicinity of Martelle, IA during the afternoon and evening of July 12.

**Heavy rains resulted in flash flooding of parts of Benton, Jones, and Linn counties during the afternoon and evening of July 12.**

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**(IA-Z068) SCOTT**

07/18/10 06:50 CST	5K	High Wind (MAX 50 kt)
07/18/10 06:50 CST	0	

Severe, non-thunderstorm wind gusts in the wake of a large convective storm complex reached up to 58 mph, knocking down at least one tree.

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**VAN BUREN COUNTY --- 0.5 E MILTON [40.67, -92.16]**

07/19/10 06:50 CST	0	Hail (0.88 in)
07/19/10 06:50 CST	0	Source: Trained Spotter

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**VAN BUREN COUNTY --- 1.5 NNW INDIAN LAKE PARK [40.65, -91.76], 0.5 E FARMINGTON [40.65, -91.72], 1.5 SSE FARMINGTON [40.63, -91.72], 0.5 W INDIAN LAKE PARK [40.63, -91.76]**

07/19/10 07:51 CST	0	Flash Flood (due to Heavy Rain)
07/19/10 10:00 CST	0	Source: Trained Spotter

Heavy rains of 1.25 inches in about 35 minutes resulted in flash flooding of a road about 5 miles northwest of Croton, IA or in the vicinity of Farmington, IA during the morning of July 19.

**Heavy rains resulted in flash flooding of parts of Van Buren County during the morning of July 19. Some non-severe hail was also observed.**

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**LEE COUNTY --- 7.1 WNW CROTON [40.61, -91.81], 2.6 NE CROTON [40.61, -91.65], 0.9 SW KEOKUK [40.39, -91.39], 7.8 SW KEOKUK [40.31, -91.47]**

07/19/10 09:45 CST	0.25M	Flood (due to Heavy Rain)
07/27/10 08:00 CST	0	Source: River/Stream Gage

Heavy rains during the third week of July resulted in the Des Moines River at St. Francisville going above the moderate flood stage level of 22 feet around 1045 am CDT July 19. It crested around 25.3 feet around 7 am CDT July 20. There was a secondary crest around 23.6 feet around 7 pm CDT July 25. It fell below the moderate flood stage level around 9 am CDT July 27.

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**VAN BUREN COUNTY --- 1.0 S LAKE SUGEMA CAMP GD [40.66, -92.00], 2.8 ESE LAKE SUGEMA CAMP GD [40.66, -91.95], 1.6 WNW MT STERLING [40.63, -91.95], 3.8 S LAKE SUGEMA CAMP GD [40.63, -92.00]**

07/19/10 15:15 CST	5K	Flash Flood (due to Heavy Rain)
07/19/10 17:00 CST	0	Source: Trained Spotter

Heavy rains resulted in flash flooding about 5 miles east of Cantril, IA during the late afternoon of July 19. The basement of a trained spotter was flooded.

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**LEE COUNTY --- 1.3 ESE SAWYER [40.71, -91.33]**

07/19/10 18:26 CST	0	Hail (0.88 in)
07/19/10 18:26 CST	0	Source: Trained Spotter

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**LEE COUNTY --- 1.3 WSW FT MADISON MUNI ARPT [40.66, -91.35]**

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/19/10 18:30 CST		0	Hail (0.88 in)
	07/19/10 18:30 CST		0	Source: Trained Spotter
Nickel-sized hail covered the ground about 3 miles north of Fort Madison, IA around 730 pm CDT July 19. Heavy rain was also observed with zero visibility.				
<b>DES MOINES COUNTY --- 0.5 W BEAVERDALE [40.85, -91.23], 2.1 NNW BURLINGTON [40.85, -91.09], 2.6 SE BURLINGTON ARPT [40.75, -91.09], 2.6 E AUGUSTA [40.75, -91.23]</b>				
	07/19/10 19:37 CST		0.25M	Flash Flood (due to Heavy Rain)
	07/20/10 08:00 CST		0	Source: Trained Spotter
Heavy rains resulted in flash flooding of Burlington, IA and West Burlington, IA during the evening of July 19 and morning of July 20. Major street flooding was observed in Burlington, IA. The flood waters were 6 inches deep on south bound lanes of Gear Avenue in West Burlington. Ten inches of water covered Mason and Garfield Streets in Burlington. The 2500 block of Flint Hills Drive was flooded with 1 foot of water. The flood waters forced the closure of Roosevelt Road near Fun City.				
<b>LEE COUNTY --- 3.5 N VIELE [40.67, -91.41], 3.7 E FT MADISON MUNI ARPT [40.67, -91.26], 3.2 ENE FT MADISON [40.64, -91.26], 2.8 S VIELE [40.58, -91.41]</b>				
	07/19/10 20:37 CST		0.25M	Flash Flood (due to Heavy Rain)
	07/20/10 07:00 CST		0	Source: Trained Spotter
Heavy rains resulted in moderate to major flash flooding throughout Fort Madison, IA during the evening of July 19 and morning of July 20. The flooding was particularly bad along Highway 61 near 2nd Street and Avenue G.				
<b>VAN BUREN COUNTY --- 3.8 N MT STERLING [40.67, -91.91], 1.9 NNE FARMINGTON [40.67, -91.72], 2.8 SE INDIAN LAKE PARK [40.60, -91.72], 1.6 SE INDIAN LAKE PARK [40.61, -91.73], 1.0 SSE MT STERLING [40.61, -91.91]</b>				
	07/19/10 21:05 CST		0.25M	Flash Flood (due to Heavy Rain)
	07/20/10 07:00 CST		0	Source: Law Enforcement
Heavy rains resulted in flash flooding of Farmington, IA and much of southeast Van Buren County during the late evening of July 19 and morning of July 20. The Burg building in Farmington was inundated with flood waters. Some rural roads were covered by flood waters that flowed out of farm fields. The flooding had receded by 830 am CDT July 20.				
<b>Heavy rains resulted in flash flooding of Van Buren, Lee, and Des Moines Counties from the late afternoon of July 19 into the morning hours of July 20. Some non-severe hail was also observed.</b>				
<b>VAN BUREN COUNTY --- 6.1 NNW SELMA [40.95, -92.20], 3.6 NNE FARMINGTON [40.70, -91.71], 5.9 SSE INDIAN LAKE PARK [40.55, -91.71], 5.5 SSW SELMA [40.80, -92.20]</b>				
	07/20/10 06:00 CST		0.25M	Flood (due to Heavy Rain)
	07/21/10 06:00 CST		0	Source: River/Stream Gage
Heavy rains during the third week of July resulted in the Des Moines River at Keosauqua going above the moderate flood stage level of 25 feet around 7 am CDT July 20. It crested around 25.7 feet around 7 pm CDT July 20. It fell below the moderate flood stage level around 7 am CDT July 21.				
<b>BUCHANAN COUNTY --- 1.3 E OTTERVILLE [42.50, -91.92], 2.3 NNE INDEPENDENCE [42.50, -91.86], 0.5 E THREE ELMS CO PARK [42.45, -91.86], 2.3 E INDEPENDENCE ARPT [42.45, -91.92]</b>				
	07/22/10 07:15 CST		0.10M	Flash Flood (due to Heavy Rain)
	07/22/10 11:00 CST		0	Source: Trained Spotter
Heavy rains of 2 to 3 inches which fell in about 90 minutes resulted in flash flooding in Independence, IA during the morning of July 22. Several streets on the northwest side of town were flooded with some cars stalled out in the flood waters. Numerous streets were closed due to the flooding.				
<b>Heavy rain mainly along and north of the Highway 20 corridor caused localized flash flooding. The primary impact of these storms was to set the stage for the extreme flooding that would take place in the next few days as several additional rounds of rainfall targeted the region through the weekend.</b>				
<b>DUBUQUE COUNTY --- 2.3 SE HOLY CROSS [42.58, -90.94], 2.4 W RICKARDSVILLE [42.58, -90.93]</b>				
	07/22/10 19:25 CST		0.10M	Thunderstorm Wind (EG 70 kt)
	07/22/10 19:30 CST		0	Source: Newspaper
On US Highway 52 between Holy Cross and Rickardsville, numerous trees were uprooted and some farm outbuildings were damaged. The roof and doors were torn from an implement dealer. Three trees at a residence across the street were also blown down, with one of the trees landing on the house.				
<b>DUBUQUE COUNTY --- 1.1 NNE GRAF [42.51, -90.86]</b>				

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/22/10 19:41 CST		0	Thunderstorm Wind (EG 70 kt)
	07/22/10 19:41 CST		0	Source: Trained Spotter

Wind gusts estimated to be 70 to 80 mph were observed about 6 miles west of Dubuque, IA near 5 Points Road at 841 pm CDT July 22.

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### DELAWARE COUNTY --- 3.6 W EDGEWOOD [42.64, -91.47], 1.7 NNW FOUNTAIN SPRINGS PARK [42.64, -91.33], 1.5 SSW FOUNTAIN SPRINGS PARK [42.60, -91.33], 4.3 ESE BACKBONE STATE PARK [42.60, -91.47]

07/22/10 19:55 CST	0	Flood (due to Heavy Rain)
07/22/10 22:00 CST	0	Source: Trained Spotter

Heavy rains resulted in flooding of two creeks near Edgewood, IA during the evening of July 22.

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### DUBUQUE COUNTY --- 0.5 W CENTER GROVE [42.50, -90.71]

07/22/10 20:09 CST	0	Thunderstorm Wind (EG 56 kt)
07/22/10 20:09 CST	0	Source: Emergency Manager

Wind gusts estimated to be 65 mph blew down some large trees on the west side of Dubuque, IA at 909 pm CDT July 22.

Thunderstorms repeatedly triggered along a stalled front during the afternoon and evening of July 23rd, affecting areas mainly from north-central Iowa eastward along the Illinois-Wisconsin border. Localized severe weather was reported, along with an increasing number of accounts of flash flooding.

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### DUBUQUE COUNTY --- 1.6 SSW WHITE PINE HOLLOW SP [42.61, -91.14], 5.3 ENE SAGEVILLE [42.61, -90.63], 2.5 E KEY WEST [42.45, -90.63], 2.2 SSW DYERSVILLE [42.45, -91.14]

07/22/10 23:45 CST	0.50M	Flash Flood (due to Heavy Rain)
07/23/10 10:00 CST	0	Source: Trained Spotter

Heavy rains of 4 to 8 inches which fell in about 12 hours resulted in flash flooding of much of Dubuque County during the morning of July 23. At 1245 am CDT, about 15 inches of water was flowing in some streets in Dubuque as torrential rains continued. At 122 am CDT, the baseball field near the junction of Coffee Creek and the North Fork Maquoketa River in New Vienna was flooded with 4 feet of water. In addition, the North Fork of the Maquoketa River flooded and flood waters started to reach the edges of some residences in town. By 539 am CDT, Highway 52 north of Dubuque was closed due to flooding.

In Dyersville, both Bear Creek and the North Fork Maquoketa River overtopped, flooding various streets around town including a 3-block section of downtown near the historic basilica. One neighborhood was surrounded by water, forcing emergency crews to stage personnell in the isolated area. About 50 homes in Dyersville were affected either by flooded basements or by loss of access.

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### BUCHANAN COUNTY --- 2.1 WNW LAMONT [42.61, -91.67], 0.9 NE LAMONT [42.61, -91.62], 1.5 SSE LAMONT [42.58, -91.62], 2.5 SW LAMONT [42.58, -91.67]

07/23/10 03:05 CST	0.10M	Flash Flood (due to Heavy Rain)
07/23/10 06:00 CST	0	Source: Emergency Manager

Heavy rains resulted in flash flooding in Lamont, IA during the morning of July 23. City crews had to sandbag the lift pump station due to the flood waters.

Thunderstorms with extremely heavy rain developed along a stationary front and moved from northeast Iowa into northwest Illinois. Some locations measured 5 to 7 inches of rainfall, causing localized flash flooding and pushing numerous creeks out of their banks. The North Fork Maquoketa River through Dubuque County was particularly hard-hit. Local officials and residents likened the flooding to that of 1999.

Pushing numerous rivers and creeks to bankfull or even out of their banks, this round of rainfall further set the stage for the extreme flooding that developed with the next round of storms later that night.

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### DELAWARE COUNTY --- 7.8 W BACKBONE STATE PARK [42.60, -91.70], 6.1 NNE BACKBONE STATE PARK [42.70, -91.50], 4.3 ESE SAND SPG [42.30, -91.10], 9.3 SSE BUCK CREEK [42.20, -91.30]

07/23/10 10:30 CST	25M	Flood (due to Heavy Rain)
07/25/10 09:15 CST	1M	Source: River/Stream Gage

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
After about 10 inches of rain fell in the upper Maquoketa River basin, the river surged to record stage levels.				
The initial impact off the surging river levels was seen in Manchester, where portions of the business district as well as numerous homes were affected by flood waters. With water reaching near the rooftops of at least one business, West Main Street was particularly hard-hit, with 2 fast food restaurants, a car dealership, a pharmacy, and several other businesses succumbing to the flood waters. Numerous basements filled with water, and there were reports of several basement walls that had collapsed. One man experienced a "near-miss" when a sinkhole developed in a parking lot and the skidloader he was driving collapsed into the raging Maquoketa River beneath the parking lot.				
County conservationists estimated that about 2000 acres of crops and another 2000 acres of pasture were covered by the flooded Maquoketa River, their yields almost entirely lost.				
Numerous properties were damaged along the river, including about 500 homes bordering Lake Delhi. Four to five feet of water filled some homes and businesses, including the Lake Delhi marina office.				
On Saturday July 24th the Lake Delhi dam failed, allowing the water to drain rapidly from the lake and flood waters to recede from the Lake Delhi properties. Please see the Storm Data entry for the Delaware County flash flood on 7/24 for a description of the Lake Delhi dam failure and its direct impacts.				
<b>Heavy rains during the fourth week of July resulted in the Maquoketa River at Manchester going above the moderate flood stage level of 17 feet on July 23 around 1130 am CDT. It surged past its previous record of 21.66 ft in 2004, cresting around an unprecedented stage of 24.5 feet (preliminary) around 7 pm CDT July 24. It fell below the moderate flood stage level around 1015 am CDT July 25.</b>				

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**JONES COUNTY --- 5.2 N MONTICELLO [42.30, -91.22], 1.9 N CANTON [42.20, -90.90], 3.6 S CANTON [42.12, -90.90], 2.4 NNW LANGWORTHY [42.23, -91.25], 6.6 NW MONTICELLO [42.30, -91.28]**

07/23/10 12:00 CST	15M	Flood (due to Heavy Rain)
07/25/10 12:00 CST	0	Source: Newspaper

Along the Maquoketa River, about 50 homes and 20 businesses in Monticello were flooded due to record flooding. A printing company was flooded for the second time in 11 months, this time even worse than the last. Even with advance preparations, the company sustained losses estimated at \$850,000. Similarly, a building company sustained \$200,000 after 4 feet of water inundated their facilities. The local paper reported that the CEO of the company "knew there was a possibility of flooding, but not 4 feet of water."

The county fairgrounds were also heavily impacted by the floods, putting a damper on the ongoing fair events that typically see more than 250,000 visitors. East of Monticello, the historic Corbett's Mill bridge washed away in the record flood and still had not been found several days after the river crested.

Although the Lake Delhi dam failure was upstream of Monticello (and other flooded Jones County communities), the bulk of the flood damage can be attributed to the record flooding of the river itself rather than the dam failure because of the relatively slow progression of the breach and the timing of the flood crest.

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**JONES COUNTY --- 4.2 N STONE CITY [42.18, -91.36], 2.6 NE OXFORD MILLS [42.00, -90.90], 2.3 SE OXFORD MILLS [41.95, -90.90], 4.2 SSE OLIN [41.95, -91.09], 0.3 E MARTELLE [42.02, -91.36]**

07/25/10 01:10 CST	10M	Flood (due to Heavy Rain)
07/29/10 12:45 CST	0	Source: Newspaper

Several homes flooded in Olin. The extent of the flooding was blamed at least in part on a levee break along a creek north of town that was intended to divert the creek waters into the Wapsipinicon River.

**Heavy rains during the fourth week of July caused both major rivers running through Jones County to crest well above flood stage.**

**Although not guaged in Jones County, the Maquoketa River reached record levels both upstream in Manchester and downstream in Maquoketa. Monticello experienced significant and unprecedented impacts as the crest made its way through the area.**

**Just a couple of days later, the Wapsipinicon River at Anamosa rose above the moderate flood stage level of 15.5 feet on July 25 around 210 am CDT. It crested in major flood around 23.6 feet around 7 pm CDT July 26, second only to the flood of 2008. It fell below the moderate flood stage level around 145 pm CDT July 29.**

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**MUSCATINE COUNTY --- 1.0 W MUSCATINE [41.42, -91.07]**

07/23/10 14:30 CST	0	Thunderstorm Wind (EG 52 kt)
07/23/10 14:30 CST	0	Source: Trained Spotter

Wind gusts estimated to be 60 mph blew down a large tree limb at the courthouse in Muscatine, IA at 330 pm CDT July 23.

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**LOUISA COUNTY --- 0.5 E GRANDVIEW [41.28, -91.19]**

07/23/10 14:36 CST	0	Thunderstorm Wind (EG 56 kt)
07/23/10 14:36 CST	0	Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Wind gusts estimated to be 65 mph blew down a 3 foot diameter tree in Grandview, IA at 336 pm CDT July 23. A power outage was also observed in town.				
<b>SCOTT COUNTY --- 1.0 NNE DAVENPORT [41.54, -90.58]</b>				
	07/23/10 14:50 CST		0	Thunderstorm Wind (EG 56 kt)
	07/23/10 14:50 CST		0	Source: NWS Employee
Wind gusts estimated to be 65 mph blew down a 10 inch diameter tree and some 2 to 4 inch branches near Vanderveer Park in Davenport, IA around 350 pm CDT July 23.				
<b>SCOTT COUNTY --- 0.7 N DAVENPORT [41.54, -90.58]</b>				
	07/23/10 14:54 CST		50K	Thunderstorm Wind (EG 61 kt)
	07/23/10 14:54 CST		0	Source: Trained Spotter
Downburst wind gusts estimated to be 70 mph blew down a radio tower and blew of about 10,000 square feet of roof at St. Ambrose University in Davenport, IA around 354 pm CDT July 23.				
<b>SCOTT COUNTY --- 0.7 SSE DAVENPORT [41.52, -90.58]</b>				
	07/23/10 14:54 CST		0.50K	Thunderstorm Wind (EG 56 kt)
	07/23/10 14:54 CST		0	Source: Trained Spotter
Wind gusts estimated to be 65 mph damaged some tents and overturned vendor tables at the Bix Fest in downtown Davenport, IA around 354 pm CDT July 23.				
<b>SCOTT COUNTY --- 1.8 NNW DAVENPORT [41.56, -90.59], 1.7 N DAVENPORT [41.55, -90.58]</b>				
	07/23/10 14:54 CST		0	Thunderstorm Wind (EG 56 kt)
	07/23/10 14:54 CST		0	Source: NWS Employee
Wind gusts estimated to be 65 mph blew down part of a large tree just east of the intersection of Marquette Street and 35th Street as well as several tree branches in Junge Park near Fire Station 3 in Davenport, IA around 354 pm CDT July 23.				
<b>SCOTT COUNTY --- 0.5 SSW DAVENPORT [41.52, -90.58]</b>				
	07/23/10 14:55 CST		0	Thunderstorm Wind (EG 56 kt)
	07/23/10 14:55 CST		0	Source: Trained Spotter
Wind gusts estimated to be 65 mph blew down a 10 inch diameter tree limb and several smaller branches near 4th Street and Brown Street in Davenport, IA around 355 pm CDT July 23.				
<b>SCOTT COUNTY --- 1.1 NNE DAVENPORT [41.54, -90.57]</b>				
	07/23/10 14:55 CST		0	Thunderstorm Wind (EG 56 kt)
	07/23/10 14:55 CST		0	Source: Trained Spotter
Wind gusts estimated to be 65 mph blew down a tree at Vanderveer Park in Davenport, IA around 355 pm CDT July 23. The tree blocked some lanes on Brady Street.				
<b>SCOTT COUNTY --- 2.5 WNW DAVENPORT [41.55, -90.62]</b>				
	07/23/10 14:56 CST		0	Thunderstorm Wind (EG 61 kt)
	07/23/10 14:56 CST		0	Source: Trained Spotter
Wind gusts estimated to be 65 to 70 mph were observed about 1 mile west southwest of Davenport, IA around 356 pm CDT July 23.				
<b>DELAWARE COUNTY --- 2.3 SW MANCHESTER [42.46, -91.48], 1.5 NE MANCHESTER [42.50, -91.43], 1.5 NE HOPKINTON [42.37, -91.23], 2.3 SW HOPKINTON [42.33, -91.28]</b>				
	07/23/10 16:23 CST		0.10M	Flood (due to Heavy Rain)
	07/23/10 17:30 CST		0	Source: Trained Spotter
Heavy rains on July 22 and 23 caused the Maquoketa River to rise 3 feet in about 2 hours during the late afternoon and evening of July 23. Some docks and decks were damaged along the river.				
<b>LINN COUNTY --- 0.5 W BERTRAM [41.95, -91.54]</b>				
	07/23/10 20:02 CST		0	Hail (0.88 in)
	07/23/10 20:02 CST		0	Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LINN COUNTY --- 0.5 E MARION [42.03, -91.59]</b>				
	07/23/10 20:15 CST		0	Hail (0.75 in)
	07/23/10 20:15 CST		0	Source: Trained Spotter
<b>LINN COUNTY --- 2.3 SSW CEDAR RAPIDS [41.97, -91.67]</b>				
	07/23/10 20:15 CST		0	Hail (1.00 in)
	07/23/10 20:15 CST		0	Source: Trained Spotter
Quarter-sized hail fell in Cedar Rapids, IA at 915 pm CDT July 23.				
<b>LINN COUNTY --- 2.1 NE MARION [42.05, -91.57]</b>				
	07/23/10 20:16 CST		0	Hail (1.00 in)
	07/23/10 20:16 CST		0	Source: Trained Spotter
Quarter-sized hail fell about 1 mile northeast of Marion, IA at 916 pm CDT July 23.				
<b>LINN COUNTY --- 0.5 E MARION [42.03, -91.59]</b>				
	07/23/10 20:19 CST		0	Hail (1.00 in)
	07/23/10 20:19 CST		0	Source: Trained Spotter
Quarter-sized hail fell in Marion, IA at 919 pm CDT July 23.				
In association with a stationary front, a large complex of thunderstorms travelled generally along and south of the Interstate 80 corridor during the afternoon and early evening of the 23rd. The storms moved across eastern Iowa and into northwest Illinois during the afternoon, intensifying as they moved east and became more organized. By the time the thunderstorm complex approached the Mississippi River, wind gusts reached 70 mph.				
Later in the evening, a second round of thunderstorms developed near the same stalled front, this time generally from Highway 30 northward. These storms produced hail up to the size of quarters, mainly in the Cedar Rapids metro area.				
<b>BUCHANAN COUNTY --- 2.0 WNW FAIRBANK [42.64, -92.08], 1.0 NNE FAIRBANK [42.64, -92.04], 6.4 ESE TROY MILLS CARSON AR [42.30, -91.60], 4.4 WSW TROY MILLS CARSON AR [42.30, -91.80], 2.9 WSW LITTLETON [42.52, -92.08]</b>				
	07/23/10 15:00 CST		0.50M	Flood (due to Heavy Rain)
	07/26/10 08:30 CST		0	Source: River/Stream Gage
Meanwhile, In Lamont the South Fork Maquoketa River and Lamont Creek flooded for the second time in 2 days, affecting several businesses and up to 200 homes (primarily with basement flooding).				
About 20 other homes around Buchanan County were also affected, including some in Winthrop along Buffalo Creek.				
Heavy rains during the fourth week of July resulted in the Wapsipinicon River at Independence going above the moderate flood stage level of 13 feet on July 23 around 9 pm CDT. It crested around 18.7 feet around 7 pm CDT July 24. It fell below the moderate flood stage level around 930 am CDT July 26.				
<b>BUCHANAN COUNTY --- 2.0 NNW FONTANA COUNTY PARK [42.62, -91.94], 2.6 NE LAMONT [42.63, -91.59], 3.3 N MONTI [42.45, -91.66], 0.7 SW INDEPENDENCE ARPT [42.44, -91.98]</b>				
	07/24/10 00:53 CST		0.50M	Flash Flood (due to Heavy Rain)
	07/24/10 03:00 CST		0	Source: Public
Heavy rains of 2 to 4 inches resulted in flash flooding in Independence, IA during the early morning of July 24. The flood waters were 1 to 2 feet deep on 6th Avenue. This report was relayed by KWWL TV.				
Still supported by a nearby stationary front, yet another round of thunderstorms dropped an additional 3-5 inches of rain across northeast Iowa and northwest Illinois during the overnight hours of July 23rd into the early morning of July 24th. This additional heavy rain exacerbated the ongoing flooding from the night before and caused even more extensive and severe damage. the Maquoketa and Wapsipinicon river basins were most notably affected.				
<b>DELAWARE COUNTY --- MANCHESTER ARPT [42.50, -91.50], 2.9 ENE MANCHESTER [42.50, -91.40], 4.3 NE HOPKINTON [42.40, -91.20], 1.7 SW SAND SPG [42.30, -91.20], 2.4 SSE BUCK CREEK [42.30, -91.33], 1.3 ESE BUCK CREEK [42.33, -91.33], 4.6 SW MANCHESTER [42.42, -91.50]</b>				
	07/24/10 10:00 CST		25M	Flash Flood (due to Dam / Levee Break)
	07/24/10 16:00 CST		0	Source: Emergency Manager



## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Record flooding on the Maquoketa River resulted in the failure of the earthen berm on the south side of the Lake Delhi/Hartwick Lake dam during the late morning and afternoon of July 24. The dam failure resulted in flash flooding of residences along the Maquoketa River immediately downstream of the dam, including portions of Hopkinton. In addition, the dam failure emptied out the 9 mile stretch of the Maquoketa River that constituted Lake Delhi/Hartwick Lake.				

In Hopkinton, a few homes, several garages, outbuildings, parks and roads flooded.

By the time the flood waters reached Monticello, the flood wave from the dam failure had largely been absorbed in the larger crest due to the ongoing record flooding of the Maquoketa River.

Please see the Storm Data narrative for the record flooding on the Maquoketa River for details on the damage due to the flooded Maquoketa River, including the homes at Lake Delhi.

**After repeated rounds of heavy rain associated with a stationary frontal boundary, record flooding on the Maquoketa River resulted in the failure of the earthen berm on the south side of the Lake Delhi/Hartwick Lake dam during the late morning and afternoon of July 24. The dam failure resulted in flash flooding of residences along the Maquoketa River immediately downstream of the dam. In addition, the dam failure emptied out the 9 mile stretch of the Maquoketa River that constituted Lake Delhi/Hartwick Lake.**

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### JACKSON COUNTY --- 2.1 N CANTON [42.20, -90.90], 1.7 NE PLEASANT CREEK [42.20, -90.30], 1.0 E MILES [42.05, -90.30], 2.6 SW MONMOUTH [42.05, -90.90]

07/24/10 10:15 CST	1M	Flood (due to Heavy Rain)
07/27/10 11:00 CST	0	Source: River/Stream Gage

Three mobile homes and a business in Canton on the western edge of Jackson County were flooded with up to 3 feet of water by the Maquoketa River. Numerous roads and bridges across the county suffered damage as a result of the record flooding. Near Maquoketa, three homes in the Hurstville Road area were flooded.

Near Spragueville, a welding business was inundated by several feet of water as flood waters from the Maquoketa River backed up along nearby Deep Creek.

The majority of flood damage in Jackson County was to crops, as most soybean fields affected by the floods were expected to be a total loss.

**More than 10 inches of rain in the watershed during the fourth week of July resulted in the Maquoketa River at Maquoketa going above the moderate flood stage level of 26 feet on July 24 around 1115 am CDT. It then topped its previous record (34.09 ft in 2002) by more than a foot, cresting around 35.1 feet around 1 am CDT July 26. It fell below the moderate flood stage level around 12 pm CDT July 27.**

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### LEE COUNTY --- 0.6 WNW VINCENNES [40.50, -91.58], 0.6 ENE VINCENNES [40.50, -91.56], 1.0 SSE VINCENNES [40.49, -91.56], 1.0 SSW VINCENNES [40.49, -91.58]

07/24/10 19:00 CST	0	Flash Flood (due to Heavy Rain)
07/24/10 22:00 CST	0	Source: Trained Spotter

Heavy rains resulted in flash flooding in Vincennes, IA during the evening of July 24. The flood waters were at least a foot deep at three intersections in town.

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### LEE COUNTY --- DONNELLSON [40.65, -91.55]

07/24/10 19:10 CST	0	Lightning
07/24/10 19:10 CST	5K	Source: Fire Department/Rescue

Lightning struck a television antenna tower outside a home and followed the wires into the home. The radio box exploded and two TVs were damaged. Several people in the area later also reported computer and television problems. Witnesses mentioned that storms had ended in the area about 30 minutes before this lightning strike.

**A small area of strong thunderstorms in southeast Iowa merged over Lee County with a larger thunderstorm complex that extended across eastern Missouri. The result was a prolonged, heavy downpour and localized reports of flash flooding.**

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### DES MOINES COUNTY --- 32.5 N NORTHFIELD [41.54, -91.10], 48.1 NE HURON [41.54, -90.40], 26.1 SSW SPRING GROVE [40.37, -91.30], 29.8 SSW AUGUSTA [40.37, -91.55]

07/25/10 21:30 CST	0.13M	Flood (due to Heavy Rain)
07/31/10 23:59 CST	0	Source: River/Stream Gage

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### LEE COUNTY --- 55.3 N SOUTH AUGUSTA [41.54, -91.10], 70.9 NE SOUTH AUGUSTA [41.54, -90.40], 4.7 ESE KEOKUK [40.37, -91.30], 7.6 SW MOOAR [40.37, -91.55]

07/25/10 21:30 CST	0.13M	Flood (due to Heavy Rain)
07/31/10 23:59 CST	0	Source: River/Stream Gage

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LOUISA COUNTY --- 16.0 NNE LETTS [41.54, -91.10], 44.0 NE TOOLESBORO [41.54, -90.40], 49.5 S NEWPORT [40.37, -91.30], 51.3 S MARSH [40.37, -91.55]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>MUSCATINE COUNTY --- 3.0 SSW MOSCOW [41.54, -91.10], 22.3 ENE MONTPELIER [41.54, -90.40], 68.3 S FRUITLAND [40.37, -91.30], 70.6 S CONESVILLE [40.37, -91.55]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>SCOTT COUNTY --- 16.8 W WALCOTT [41.54, -91.10], 2.6 SE PLEASANT VLY [41.54, -90.40], 80.3 SSW BUFFALO [40.37, -91.30], 86.0 SSW BUFFALO [40.37, -91.55]</b>				
	07/25/10 21:30 CST		0.13M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in moderate flooding on the Mississippi River from Rock Island to Gregory Landing.				
At Rock Island, it crested around 17.2 feet around 1 pm July 27.				
At Illinois City, it crested around 17.0 feet around 7 am July 28.				
At Muscatine, it crested around 18.5 feet around 1 pm July 28.				
At New Boston, it crested around 18.3 feet around 1 pm July 28.				
At Keithsburg, it crested around 16.9 feet around 1 am July 29.				
At Gladstone, it crested around 13.6 feet around 7 am July 29.				
At Burlington, it crested around 17.74 feet around 7 pm July 29.				
At Keokuk, it crested around 18.2 feet around 7 pm July 29.				
At Gregory Landing, it crested around 19.36 feet around 1 pm July 30.				
<b>CLINTON COUNTY --- 3.6 NNW TORONTO [41.95, -90.90], 4.1 E FOLLETTTS [41.75, -90.30], 0.5 E CAMANCHE [41.67, -90.34], 4.5 SW BIG ROCK [41.73, -90.90]</b>				
	07/28/10 12:00 CST		0.25M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
<b>SCOTT COUNTY --- 15.1 NNW DIXON [41.95, -90.90], 5.3 ESE MC CAUSLAND [41.75, -90.30], 0.5 E PRINCETON [41.67, -90.34], 1.2 NW NEW LIBERTY [41.73, -90.90]</b>				
	07/28/10 12:00 CST		0.25M	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in the Wapsipinicon River at De Witt going above the moderate flood stage level of 11.5 feet on July 28 around 1 pm CDT. It crested around 13.5 feet around 1 am CDT July 30. It remained above the moderate flood stage level though the end of July.				
<b>JOHNSON COUNTY --- 0.2 NW LONE TREE [41.48, -91.43], 0.5 ENE LONE TREE [41.48, -91.42], 0.5 ESE LONE TREE [41.48, -91.42], 0.2 SW LONE TREE [41.48, -91.43]</b>				
	07/30/10 21:14 CST		25K	Flash Flood (due to Heavy Rain)
	07/31/10 01:00 CST		0	Source: Law Enforcement
Heavy rains resulted in flash flooding of Dougherty Drive in Lone Tree, IA during the late evening of July 30 and early morning of July 31.				
Heavy rains resulted in flash flooding in Lone Tree, IA during the late night of July 30 and early morning of July 31.				
<b>IOWA COUNTY --- 5.9 WNW KOSZTA [41.86, -92.30], 3.5 NE EAST AMANA [41.86, -91.83], 2.4 SE HOMESTEAD [41.75, -91.83], 1.4 N VICTOR [41.75, -92.30]</b>				
	07/31/10 12:00 CST		0	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the last two weeks of July resulted in the Iowa River at Marengo going above the moderate flood stage level of 15.5 feet around 1 pm July 31. It remained at the moderate flood stage level into August.				

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>CLARK COUNTY --- 3.0 NW ANSON [40.61, -91.81], 3.3 NE ATHENS [40.61, -91.65], 4.4 ENE ALEXANDRIA [40.39, -91.39], 2.6 NE GREGORY LNDG [40.31, -91.47]</b>				
	07/05/10 15:00 CST		0.13M	Flood (due to Heavy Rain)
	07/10/10 21:00 CST		0	Source: River/Stream Gage
Heavy rains during the first week of July resulted in the Des Moines River at St. Francisville going above the moderate flood stage level of 22 feet around 4 pm CDT July 5. It crested around 24.6 feet around 7 pm CDT July 6. It fell below the moderate flood stage level around 10 pm CDT July 10.				
<b>SCOTLAND COUNTY --- 1.3 ESE MEMPHIS [40.46, -92.15], 0.7 S ARBELA [40.46, -92.02], 0.5 E GORIN [40.37, -92.02], 3.6 NNW SAND HILL [40.37, -92.15]</b>				
	07/07/10 15:30 CST		0	Flash Flood (due to Heavy Rain)
	07/07/10 21:00 CST		0	Source: Trained Spotter
Heavy rains resulted in flash flooding of some rural roads about 5 miles north northwest of South Gorin, MO during the late afternoon and evening of July 7. The flood waters were up to a foot deep. The flooding started a few hours prior to 555 pm CDT.				
Heavy rains resulted in flash flooding of some rural roads about 5 miles north northwest of South Gorin, MO during the late afternoon and evening of July 7.				
<b>SCOTLAND COUNTY --- 0.7 S MEMPHIS [40.46, -92.17]</b>				
	07/18/10 05:00 CST		10K	Thunderstorm Wind (EG 52 kt)
	07/18/10 05:00 CST		0	Source: Law Enforcement
Wind gusts estimated to be 60 mph blew down some power lines in Memphis, MO at 600 am CDT July 18.				
<b>SCOTLAND COUNTY --- 1.3 WNW MEMPHIS [40.48, -92.19], 1.7 ENE MEMPHIS [40.48, -92.14], 2.6 SE MEMPHIS [40.44, -92.14], 1.7 ENE SHOW ME LAKE [40.44, -92.19]</b>				
	07/18/10 05:09 CST		0	Flash Flood (due to Heavy Rain)
	07/18/10 06:00 CST		0	Source: Trained Spotter
Heavy rains resulted in flash flooding of some streets in Memphis, MO during the morning of July 18.				
A severe thunderstorm produced damaging winds and flash flooding in Memphis, MO during the morning of July 18.				
<b>CLARK COUNTY --- 3.0 NW ANSON [40.61, -91.81], 3.3 NE ATHENS [40.61, -91.65], 4.4 ENE ALEXANDRIA [40.39, -91.39], 2.6 NE GREGORY LNDG [40.31, -91.47]</b>				
	07/19/10 09:45 CST		0.25M	Flood (due to Heavy Rain)
	07/27/10 08:00 CST		0	Source: River/Stream Gage
Heavy rains during the third week of July resulted in the Des Moines River at St. Francisville going above the moderate flood stage level of 22 feet around 1045 am CDT July 19. It crested around 25.3 feet around 7 am CDT July 20. There was a secondary crest around 23.6 feet around 7 pm CDT July 25. It fell below the moderate flood stage level around 9 am CDT July 27.				
<b>SCOTLAND COUNTY --- 1.1 W ARBELA [40.47, -92.04], 1.3 E GRANGER [40.47, -91.94], 4.0 E ELLA EWING LAKE [40.35, -91.94], 1.1 W ELLA EWING LAKE [40.35, -92.04]</b>				
	07/19/10 21:32 CST		10K	Flash Flood (due to Heavy Rain)
	07/20/10 07:00 CST		0	Source: Law Enforcement
Heavy rains resulted in flash flooding of parts of southeast Scotland County during the late evening of July 19 and morning of July 20. The flood waters covered State Highway A south of Highway 136 between Arbela, MO and Gorin, MO. In addition, flood waters covered State Highway E about 1 mile east of Etna, MO.				
Heavy rains resulted in flash flooding of parts of southeast Scotland County during the late evening of July 19 and morning of July 20.				
<b>CLARK COUNTY --- 9.7 WNW ANSON [40.61, -91.95], 4.2 WNW ANSON [40.61, -91.84], 1.3 ESE ALEXANDRIA [40.36, -91.45], 2.1 SSE GREGORY LNDG [40.25, -91.49], 5.5 NW LURAY [40.51, -91.95]</b>				
	07/20/10 13:40 CST		0.25M	Flood (due to Heavy Rain)
	07/22/10 04:00 CST		0	Source: River/Stream Gage
Heavy rains during the third week of July resulted in the Des Moines River at Wayland going above the moderate flood stage level of 18 feet around 240 pm CDT July 20. It crested around 19.4 feet around 7 am CDT July 21. It fell below the moderate flood stage level around 5 am July 22.				

## Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>CLARK COUNTY --- KAHOKA [40.42, -91.72]</b>				
	07/24/10 11:59 CST		5K	Thunderstorm Wind (EG 61 kt)
	07/24/10 11:59 CST		0	Source: Law Enforcement
Wind gusts estimated to be 70 mph blew down several trees and power lines in Kahoka, MO at 1259 pm CDT July 24.				
<b>CLARK COUNTY --- KAHOKA [40.42, -91.72]</b>				
	07/24/10 12:08 CST		50K	Thunderstorm Wind (EG 61 kt)
	07/24/10 12:08 CST		0	Source: Law Enforcement
Wind gusts estimated to be 70 mph blew down two trees which fell onto cars in Kahoka, MO at 108 pm CDT July 24. In addition, some power lines were also blown down.				
<b>CLARK COUNTY --- 1.5 SSW KAHOKA [40.40, -91.73], 1.1 E WAYLAND [40.40, -91.56], 3.5 ESE WINCHESTER [40.30, -91.56], 2.6 SW ANTIOCH [40.30, -91.73]</b>				
	07/24/10 18:19 CST		0	Flash Flood (due to Heavy Rain)
	07/24/10 21:00 CST		0	Source: Law Enforcement
Heavy rains resulted in flash flooding of Highway 136 in Wayland, MO and Route H between Kahoka and Winchester during the evening of July 24.				
<b>A thunderstorm complex intensified as it approached the Mississippi River, producing damaging wind gusts that blew down trees and power lines in extreme northeast Missouri during the early afternoon on July 24th.</b>				
<b>CLARK COUNTY --- 1.4 N ALEXANDRIA [40.39, -91.47], 3.9 ENE ALEXANDRIA [40.39, -91.40], 2.3 SSE GREGORY LNDG [40.25, -91.48], 3.4 SW GREGORY LNDG [40.25, -91.55]</b>				
	07/27/10 08:00 CST		75K	Flood (due to Heavy Rain)
	07/31/10 23:59 CST		0	Source: River/Stream Gage
Heavy rains during the fourth week of July resulted in moderate flooding on the Mississippi River from Rock Island to Gregory Landing.				
At Keokuk, it crested around 18.2 feet around 7 pm July 29.				
At Gregory Landing, it crested around 19.36 feet around 1 pm July 30.				